ASBESTOS

Vol. 4 MAY, 1923 No. 11

FURNISHING A COMMON VANTAGE GROUND WHERE THOSE INTERESTED IN ASBESTOS AND MAGNESIA MAY MEET FOR DISCUSSION

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... ASBESTOS ...

A MONTHLY MARKET JOURNAL

DEVOTED TO THE INTERESTS OF THE
ASBESTOS AND MAGNESIA INDUSTRIES

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Cover Page—Type of Buildings at Chrysotile, Arizona.
Photo by courtesy Mrs. Nelson

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Photo by courtesy of Lotz Asbestos Company

The New Plant of the Lotz Asbestos Company on Windsor Street, Hartford, Conn., Purchased Last Fall From Myers & Gross, the Lotz Asbestos Company Having Outgrown Their Former Location.

EDITORIALS

Old Time Merchandising Methods.

You stroll down the streets of old world cities, such as Cairo, and look with interest on the various wares displayed for sale. Suddenly something which you desire to possess, catches your eye. You pause and look at it—indifferently, if you are an experienced traveler in those parts.

You ask the price and are told a certain sum. If you do not know the game you probably turn abruptly away; but if you are used to "bartering" you stay and when you finally leave carry the object in your hand, having paid a much lower price than was first asked.

Sometimes the asbestos trade reminds us of those old time merchants, for, as someone remarked the other day, asbestos goods at the present time are rarely sold at the first price asked. The only difference between the asbestos trader of today and the Egyptian, is that the Egyptian has sense enough to place the first price high so that he can come down without loss.

Why, pray tell, do our asbestos merchants deem it policy to so mercilessly cut the price.

Why do they, seemingly, believe everything the buyer tells them?

What is their object in selling goods so very near cost?

We talked to an asbestos textile man over the phone the other day and he complained bitterly that he had seen orders for large quantities of asbestos textiles taken at a price about 10% below the ruling market price, and at that the market price was none too high when cost was considered.

We talked to an insulation contractor and were told that prices were too low.

The same complaint was made by an asbestos paper man.

Whose fault is it that the price is too low?

Someone is evidently kidding himself that *his* cost is lower than anyone else's, or else he is in business for the pleasure of it and cares nothing for the profit.

Think a minute. Is your cost *likely* to be lower than

the Lois Asbestos Company Having Outgrown Their Former Location.

the other fellow's? Are you doing yourself any good by taking business at so low a margin that there is no profit, or at best very little, in it?

To we who sit on the side lines looking on (and that is where we of "ASBESTOS" do sit) it looks very much as tho the most urgent need of the asbestos industry at present is a little backbone.

And the good that such backbone will do is illustrated by an incident that came to our attention lately. An asbestos man quoted a certain price on a certain commodity. The buyer claimed he had a lower price. The asbestos man suggested that he buy the material from the low bidder as he, the asbestos man, would sell it not one cent cheaper than he had quoted. The next day along came the order at the price quoted. Can anyone tell us why the man did not give the order to the low bidder?

The Dearth of Statistical Information.

It is not often that "ASBESTOS" receives an inquiry which it is utterly unable to answer and cannot even refer the inquirer to some source where the desired information can be obtained.

Such was our experience however, the other day, when we were asked to supply statistics as to production, and consumption, of magnesia, asbestos pipe covering, locomotive lagging, asbestos shingles and light powdered carbonate of magnesia from 1910 to date.

To our knowledge there are no such statistics in existence which are in any way reliable or authentic. The best anyone could supply would be mere guesses, and our experience leads us to the opinion that guesses are worse than no figures at all.

Asbestos and Magnesia manufacturers seem to be very much averse to having tabulations made as to production and sales. Why, we cannot imagine, since such tabulations would undoubtedly be very helpful to all in the Industry—and surely could harm no one.

Would it not be helpful, for instance, to know how many feet of brake lining were made during 1922—how many feet of covering were sold that year—how many squares of shingles were applied. Such information could

be used in many ways by the manufacturer to further his interests.

That statistical data of this sort is not desired by the Asbestos Industry seems to be evidenced by the mere fact that it is not available. "ASBESTOS" is ready and more than willing to make such tabulations—the machinery is all set up ready to run, but we cannot make cloth without yarn.

Railroad Business.

During 1923 the railroads of the U. S. A. contemplate an expenditure of $1,100,000,000 for new equipment, divided roughly into three parts:

For Cars	$515,000,000
For Locomotives	160,000,000
For Trackage, etc.	425,000,000

Such a move can be nothing but encouraging to the asbestos trade. It is estimated that by next October, when seasonal traffic is at its height, the railroads will have 100,000 more cars and 4200 more locomotives than are at present available.

This is at least a hopeful sign that next year the railroads will be able to handle the tremendous quantity of freight without the bad congestion experienced in the past, and this in itself will eliminate many of the troubles of the asbestos miners and manufacturers.

Moreover, the new equipment to be purchased by the railroads cannot fail to influence the demand for asbestos materials—locomotive boilers must have insulation, packing and whatnot, while the industries manufacturing the cars, the locomotives, rails and innumerable parts, will need many asbestos commodities in large quantities.

If, in the face of increased demand, the asbestos manufacturers will have backbone enough to ask for and insist on a decent price (and by decent we mean a price enough above cost to show a fair margin of profit) there is hope that conditions in our industry will improve.

What every business needs is enthusiasm. No one ever complains of the high cost of golf balls.—*Boston Shoe and Leather Reporter.*

MARKET CONDITIONS

Of late years the business cycle seems to have become a whirl, so swiftly does boom follow deflation.

At present the general move is upward—rising wages, rising prices and increasing demand. Where and when will it end? Sometime, and perhaps not so far distant, the public is going to refuse to pay the increased price, and then demand will slacken, unemployment will occur and, gradually, prices fall.

Asbestos, as always, is the last to feel the effect of a boom.

At present, prices seem to be the factor causing most concern in the general Asbestos situation. As one of our correspondents in the packing line puts it, "prices seem to be slashed in order to obtain tonnage at the factories," and another concern gives it as their opinion that the low price phase is due to competition from mills in their infancy.

Demand seems to be pretty generally increasing in asbestos lines.

Raw material perhaps shows less increase than the manufactured goods, but increase in demand for raw material would naturally come last. In the lower grades demand is good, and prices firm with an upward tendency; it is the higher grades that worry the mine operators. But with an increasing textile and packing market, the spinning fibres should show some improvement, even tho the price of crudes is comparatively low.

As to manufactured goods, paper continues to keep pace with the building boom, and millboard also to a somewhat lesser extent.

The same is true of insulation both high and low pressure.

Dodge statistics show substantial increases in building contracts awarded in March over those in February.

Brake Lining naturally keeps up the pace, with automobile production for March breaking all records. A few weeks ago a brake lining manufacturer placed an order for material which according to tonnage was said to be the largest order ever placed in the Asbestos Textile line.

Both inquiries and orders for packing show decided

improvement, altho, as one packing man states it "selling packing is hard work."

Shingles show good demand and prices generally are satisfactory.

Comments on Various Markets

Cotton.

Moyse & Homes, 67 Exchange Place, New York City, have been good enough to agree to supply information concerning the cotton market each month for publication in "ASBESTOS." This month they say:

The present trend of cotton prices seems lower but as the indicated carry-over of American cotton August first will probably be around a million bales and consumption being on a basis of about thirteen million bales, the necessity for a large crop this year is consequently of grave importance to the trade. The start so far has been none too favorable and a dry warm May in the south is badly needed.

Wire.

The Standard Underground Cable Company of Philadelphia, give us the following comments on the wire market:

Both here and abroad the copper market has been quiet and irregular for the past month; the absence of active buying resulting in a drop in the price of wire bars by the end of the month of $\frac{3}{8}$ to $\frac{1}{2}$ cent. It is anticipated, however, that any substantial evidence of active buying would have the effect of stiffening the market promptly.

The zinc market has undergone a rapid reaction during the past month as a result of the weakness abroad and absence of domestic buying. Prime Western zinc for prompt shipment is quoted at 7 cents E. St. Louis, with prices somewhat lower for later months.

Prepared Roofing

1. RAG FELT ROOFING AND GENERAL INFORMATION AS TO APPLICATION

By H. C. Werner

The name, prepared roofing, has been given to all roofing felts which are manufactured and put in a roll or sheet form, so that they are ready to be applied without any other means of application, except those of nails and cement at the laps, or by other improved methods of fastening. These felts are applied only in one layer and, not like the ordinary tarred felt or pitch built-up roofing, which are applied one layer of felt over the other or partly, hot tar or pitch being used as an adhesive. Ready to lay roofing is another term given to this class, and it is all that the name implies.

Several years ago rag felt was the only type of roofing that came under this heading, but with the manufacturing of asbestos roofing felts, these also are placed under this class. Great strides are being made with the latter as a roofing felt, not only in this line, but in others as well, and soon there will be even a greater demand for this product when the true value of asbestos felts is known by the general public.

However, in order to compare the value of asbestos roofing felts with rag felt roofing, it is necessary to give a description of how each is made and what materials are used in their construction.

RAG FELT ROOFING

From the appearance of the finished product, due to the water-proof coating and flexibility, it is often called rubber type roofing. Wool felt roofing is another name, this being derived from the fact that the felts are supposed to be manufactured from wool fibre. However, this is wrong, and is a misnomer, for wool alone is very soft and does not make a satisfactory roofing felt and therefore other hard fibres are added to insure the making of a strong and compact sheet which will afterward absorb the right percentage of bituminous saturation.

Rag felt roofing is made from rags, shoddy, burlap, cotton, wool and quite often from straw or paper fibres. These are taken and mixed in different proportions, saturated and

then coated with a bituminous preparation. Explanations of each process will follow.

Wool and cotton fibres are the most expensive followed by burlap, straw and wood. Good roofing of this kind contains mostly the first two with a combination of burlap, the cheaper brands containing more of the wood and straw fibres. Cotton and wool are the most durable, followed by jute, manila and wood pulp. The least affected by the rays of the sun or moisture is wool, cotton following. This is easily demonstrated, especially in wearing apparel.

In the formation of the felts certain percentages of the above materials are taken, these being generally as follows: Cotton, 50 to 70%; wool fibres, 10 to 20%; jute and manila fibres, 5 to 15%; wood fibres, 1 to 5%.

From the above it can be readily seen that the name "wool-felt" roofing is a discrepancy.

The cotton and wool fibres are known as soft rags, and good roofing generally has about 75 to 80%. These fibres are secured from men's coats and trousers, women's coats, etc. About 20 to 25% of hard rags are used, these being obtained from jute, burlap, manila, etc.

The success of this type roofing lies in, first. the secret of the combination of the above mentioned materials in their proper proportions, and this is based on whether the felts are made from old or new rags (old rags will have more of a tendency to become rotten) and also the length of the rag fibres; second, the subsequent saturation of these fibres, and third, the final waterproof coating.

By mixing the proper proportions of the various fibres of the hard and soft rags with water so that they are thoroly soaked, a pulp is formed, the thickness having been previously determined.

All rag felt roofing is made in three or four weights, these being known as light, medium, heavy and extra heavy. These are sometimes called plies, which is incorrect for this term means layers, and rag felt roofing is made up of only one layer but each weight is of a different thickness.

The pulpy mass of well soaked fibres is now picked up by a wire cloth which acts as a strainer and allows a great deal of water to drain off. From the wire cloth this new felt is passed thru pressure rollers which make the felt strong enough to hold together. It is next passed thru

steam rollers which assist to drive out any remaining water. The felt is then wound on rollers known as winders. This is known as the unsaturated wool felt.

In some modern plants they eliminate the winders and continue the process of making the finished product from the time the wire cloth picks up the pulp, forms the felt and which finally receives its saturation and subsequent waterproof coating. The operation, however, in general, is practically the same wherever rag felt roofing is manufactured.

The wool felt is now ready for the process of saturation. The quality of the finished product is determined partly by the amount of saturant the wool felt is able to absorb. for the more saturant that is taken in by the unsaturated felt, the more flexible will be the roofing. This is one indication of good roofing of this kind and not thickness nor weight as many people have been led to believe. Due to this rubber-like quality or flexibility of rag felt roofing there has arisen the term "rubber type" roofing.

It can be readily seen here that soft rags are used, for the harder the felt the less chance there is of saturation. This could only be done with saturants that have much oil in them, but the trouble here is that the oils soon dry out and the felts begin to crack. If the saturant is not of the best this drying out soon occurs. Cheaper brands of rag felt roofing have poor volatile oils; that is those which soon evaporate and the roofing felt, when this occurs, soon loses color and turns yellow. In good brands of roofing there will be little if any evaporation of these saturating materials. It is this saturating process which protects the fibres of the felt and preserves the original strength, softness and pliability of this material.

Heat and pressure are used in this process, and the unsaturated felt is now saturated with a bituminous mixture by continuously running the former thru a tank of the latter. The felt is then passed between two steam heated press rollers one above the other, then around several more of these, the rollers being arranged in two tiers. The latter drive the excess asphalt into the sheet, causing the saturated felt to leave the machine perfectly dry. The more saturant that is absorbed by the felt fabric considered with the formation of a dry surface, the more durable will the fibres be against water and weather.

An undersaturated felt will be porous and absorb moisture, this shortening the life of the felt. Oversaturation causes part of the saturating material to remain on the surfaces and this will cause many complaints in that the rolls will stick when an attempt is made to unwind them.

After saturation comes the outside coating, or waterproofing, of the saturated felt. This process is practically the same as that of saturating the felt except that the bituminous substances used for waterproofing are of a harder consistency and usually of a higher fusing point. This is necessary, otherwise the heat of the sun's rays would soon cause the asphalt to melt or dry out. This waterproof or surface coating in other words protects and seals in the saturating materials used, and the wearing qualities therefore depend to a great extent on this outer coating as it offers the first resistance to wear and exposure. It also prevents oxidation and volatilization and excludes moisture from the fabric fibres. If this outer coating is properly applied it will weather away gradually and uniformly. As soon as this protective coating disappears thru weathering, the fabric will commence to rot and disintegrate until it becomes so weak that the first heavy wind will rip it and this, of course, ends the life of the roofing felt.

At this point it is interesting to note that manufacturers of this product recommend that every two or three years the roofing felt should be coated with a bituminous paint which they sell, otherwise they will not guarantee the roofing. This painting is done in order to prolong the life of the rag felt roofing.

Generally before the roofing felt is put up in rolls, finely powdered talc is sprinkled on both sides in order to keep the felts from sticking. Some use powdered mineral matter mixed with the surface coating while the latter is in a molten condition and this is applied to the surface of the roofing in order to increase weather resistance. Often opaque pigments, including graphite or lamp black, are used so as to assist in the excluding of the rays of light or those of the sun, which help to decompose the saturating bituminous substances.

Fine sand has been taken so as to give a little color or to assist in increasing the weight of the roofing. Manufacturers of cheaper brands produce light felts and then add the sand to keep up the standard weight of the roofing.

This is a clever stunt and, of course, reduces the cost of the finished product.

Others use coarse flakes of mica or, for a more artistic appearance, red or green crushed slate, artificially colored or crushed brick. Some manufacturers have gone even further by taking the felts with red or green crushed slate and imprinting on them the shapes of shingles. From even a short distance this gives the appearance of a roof made up of individual shingles.

APPLICATION, ETC.

Both rag felt and asbestos roofings are made in thirty-two inch widths, and put up in rolls of one hundred and eight or two hundred and sixteen square feet. The four ply asbestos roofing is the exception, this being cut to sheets thirty-two by eighty inches, six sheets giving one hundred square feet when applied on a roof, if an inch and a half lap is used. One hundred square feet of covered surface is called by the roofer a square.

Inside of every roll are the completing materials. These usually consist of lap cement and seven-eighth inch, large head, thin shank nails. Bright roofing nails have been used for the rag felt roofing, but manufacturers are eliminating these and using a galvanized nail for this type as well as for the asbestos roofing because the galvanized nail will not rust as quickly as the bright nail. Others have gone a step farther and supplied roofing caps, which are tin discs approximately an inch and a half in diameter. These have not proven very successful and there is now on the market a galvanized cleat about six inches long and three-quarter inches wide, containing four holes thru which thin shank, small head galvanized nails are driven.

This is one of the best means of fastening the roll and sheet roofing since the cleats prevent the buckling of the felts, eliminate the bulging and insure a tight, even and uniform pressure along the seams, making them absolutely weather-tight. These cleats also prevent the development of leaks from nails which might have been driven thru cracks in the sheathing boards and held for the time being, but afterwards become loosened. Contraction and expansion will soon force the nails to loosen and water eventually will force itself in. This cannot happen with the cleat, for even tho one nail is loose, three others hold

the cleat in place. Due to excessive heat, the lap cement which is used will often become soft and then dry out, thus opening the seams. The cleats prevent this.

With all roofing, whether sent out in roll or sheet form, instruction sheets are enclosed, these giving directions for the proper application of the roofing felts, hints for good flashing and precautions to observe in order to insure a good weather-tight roof.

Generally the prepared roofing should never be applied in lengths exceeding thirteen feet, and the roof should not have a pitch of less than an inch and a half to the foot. The roofing felts should be laid over good, solid sheathing boards which have been properly seasoned or otherwise they may buckle and warp, thus puncturing the felts. Application can also be made over tin and if this has standing seams they can be hammered down. Some manufacturers have recommended roll roofing to be applied over wooden shingles but the chances of injuring the felts are too great, for the shingles tend to warp and curl, and with the contraction and expansion which is encountered, they will pierce the felts causing leaks. The wind also has a better opportunity of getting in under the felts and tearing them off the roof.

In the June number Mr. Werner will write of Asbestos Prepared Roofing and compare its qualities with those of Rag Felt Roofing.

A jurisdiction labor dispute over the application of cork insulation and substitutes therefor is now on in Cleveland, the contestants being the bricklayers, the plasterers and the asbestos workers. The case will come before the National Board of Jurisdictional Awards, which meets in Washington, D. C., the week of May 21st, for the final adjudication and settlement.

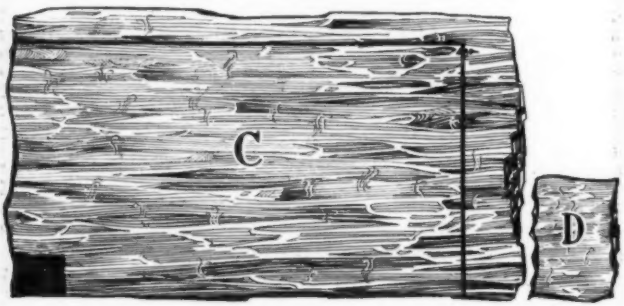
1922 Canadian Production—and Rhodesian

One of our more careful readers, calls our attention to discrepancy in sketch appearing on page 17 of the April number, and illustrating Canadian Production.

The error was in the figure "D", representing Rhodesian production.

In figures, the crudes, fibres and asbestic produced in Canada during 1922, and represented in the April number by the small black square, "B" and "C" together, amounted to 165,193 tons, while the Rhodesian production, represented by "D", amounted to but 15,957 tons. D should therefore be less than one tenth as large as B and C together.

In order to still further correct the wrong impression given our readers, we have had a new graph made, showing the relation of Rhodesian production in 1922 to Canadian.



Sketch by John Bach

Small black square: Crudes produced by Canada, 3238 tons.

Whole lefthand figure: Crudes, fibres and asbestic produced by Canada, 165,193 tons.

C—Asbestos used by the United States, 133,500 tons.

D—Rhodesian production, 15,957 tons.

About the time a man gets to thinking he is a big gun, somebody usually comes along and fires him.

Contractors and Distributors Page

CONTRIBUTED

According to the survey of the Associated General Contractors of America, there were but 2100 union asbestos pipe covering mechanics in the United States last year. This would seem to indicate that a large percentage of insulation and asbestos workers are not union men, and that many shops are on an open shop basis.

While an unprecedented shortage of skilled mechanics in the building trades is reported the country over, asbestos and magnesia covering jobs are well manned and no shortage exists. Of this statement the best evidence is the comparatively uniform rates of wages.

Under these conditions it would appear that employers have an ideal opportunity to "weed out" inefficient mechanics. By a process of selection or elimination, a group of highly skilled mechanics may easily be developed in shops so disposed. Opportunity is present, too, for employers to set up standards for helpers desiring mechanic's rating. Helpers should not be made mechanics until they are fully rounded workmen. That is, they must be efficient not only in sectional work, but in cement work, canvas sewing, etc., as well.

Probably more important than the quality of pipe covering is its application. How often the industry suffers by shabby workmanship. Scientific laboratory tests have shown any insulation covering to be inefficient when the covering sags on the pipe because of the air currents between the pipe surface and the covering. Covering can be made to sag by careless application. On the other hand it is held that 85% magnesia, *when properly applied*, will never sag.

Every shoddy application is a knock at the insulation industry. Applying insulation to breeches, elbow fittings, etc., requires highly skilled workmanship, and jobs can be made so beautiful as to appear almost as a work of art, or so rugged as to reflect discredit on the industry. One's monument is his work.

The following rates prevail in the large industrial centers for insulation and asbestos mechanics as of March 31, 1923.

Atlanta	$.90	Milwaukee	$.80
Baltimore	.90	New York City	1.12½
Boston	1.00	Philadelphia	.85
Buffalo	.90	Pittsburgh	1.12½
Chicago	.95	Reading	1.00
Cincinnati	.92½	Richmond	.80
Cleveland	1.00	Rochester	1.00
Columbia, S. C.	1.12½	San Francisco	.87½
Des Moines	1.00	St. Louis	1.00
Detroit	.93¾	St. Paul	.80
Los Angeles	1.00	Toledo	.85
Louisville	1.00	Washington	.90
Memphis	1.00	Youngstown	.90

FILTRATION

A suggested new use for asbestos has to do with the filtration of municipal water supplies.

Science has discovered that all living organisms exhibit a definite attraction to either the positive or negative pole of an electric current.

Using filter cloth, *made of asbestos,* water to be filtered is passed between the poles of a strong electrical current and the bacterial contamination is entirely removed.

The process, as so far developed, is much more economical and decidedly more efficient than any other known process.

Large quantities of asbestos cloth should find their way into this activity, especially since it is only a queston of time until all municipal water supplies will be filtered as required by law.

The facilities of the Chrysotile Fellowship at the Mellon Institute of Industrial Research, are at the command of any interested parties.

Consolidated Asbestos Limited

Canada Cement Building

Montreal, - Canada

Black Lake Asbestos and Chrome Company
LIMITED

Controlling
Union Asbestos Mines
Southwark Mines
Imperial Asbestos Mines
Black Lake Chrome Mines
Coleraine Chrome Mines

Mines at Black Lake, Que.
Canada

CRUDES and FIBRES
Shingle Fibres a Specialty

Head Office
Jacobs Building
MONTREAL

Branch Offices
Paris Yokohama Hamburg

Imports and Exports of Asbestos

Imports Into U. S. A.

Gradually the U. S. Government, or rather its custom offices, is catching up on the statistics for imports, and we hope in a month or two to print in one issue all import and export figures for a particular month.

Imports of Unmanufactured Asbestos:

	December, 1922		January, 1923	
	Tons	Value	Tons	Value
From Germany	...	$ 2.00	...	.....
England	201	53,090.00	54	$16,156.00
Canada	14,657	687,231.00	8862	383,648.00
Br. South Africa	...	.....	13	1,796.00
Port. E. Africa	...	.....	103	31,750.00
	14,858	$740,323.00	8932	$433,350.00

Imports of Manufactured Asbestos, by Countries:

	December, 1922		January, 1923	
	Lbs.	Value	Lbs.	Value
From Austria	464	$6,631.00	...	.....
Germany	2	3.00	...	.....
Hungary	...	.....	47,928	$18,842.00
Netherlands	2,249	425.00	...	.....
England	12,191	4,876.00	3,650	2,764.00
Canada	59,054	2,611.00	8,444	2,524.00
China	...	.....	4,692	3,454.00
	73,951	$14,546.00	64,714	$27,584.00

Imports of manufactured asbestos during December, 1921, were valued at $30,999.00 (no quantity figures being available at that time).

Exports From the U. S. A.

Exports of unmanufactured asbestos for February, 1923, amounted to 5 tons valued at $437.00.

Exports of manufactured asbestos goods for February, 1923, were as follows:

Paper, Millboard and Rollboard	191,316 lbs.	$ 9,567.00
Pipe Covering and Cement	432,602 lbs.	29,771.00
Textiles, Yarn and Packing	67,660 lbs.	52,144.00
Magnesia and Manufactures of	468,534 lbs.	27,498.00
Asbestos Roofing	10,030 sq. ft.	16,649.00
Other Manufactures	133,602 lbs.	55,320.00

ASBESTOS

Exports From Canada (Raw Asbestos).

	February, 1923		February, 1922	
Crudes and Fibres—	Tons	Value	Tons	Value
United Kingdom	160	$ 6,000.00	78	$ 15,690.00
United States	3,962	291,190.00	4,778	219,834.00
Australia	...	.....	...	.....
Austria	...	.....	...	.....
Belgium	365	34,500.00	336	29,480.00
France	245	16,807.00	220	26,465.00
Germany	288	40,053.00	255	74,800.00
Italy	...	.....	...	.....
Japan	160	10,450.00	99	4,950.00
Netherlands	20	1,000.00	310	41,915.00
Spain	...	.....	...	.....
Switzerland	...	.....	...	.....
Other Countries	55	4,125.00	...	.....
Sand and Waste—	5,275	$404,125.00	6,076	$413,134.00
United Kingdom	45	535.00	...	.....
United States	2,582	28,125.00	2,281	23,702.00
Other Countries	70	1,245.00	...	.....
Grand Total	7,972	$434,030.00	8.357	$436,836.00

Summaries

Imports of manufactured asbestos goods, by months, during 1922, were as follows:

January	$55,704.00	August	$35,872.00
February	29,979.00	September	22,208.00*
March	26,974.00	October	38,326.00*
April	9,476.00	November	8,003.00
May	17,923.00	December	14,546.00
June	33,119.00		
July	16,760.00	Total	$308,890.00

*September figures include first 21 days only.
October figures include last nine days of September.

Next month we hope to give the imports of manufactured asbestos goods for 1922, by countries.

Man was plainly intended to work, else why when he asked for butter did nature give him a cow?

Correct Valuation of Stock on Hand

Readers will remember that in the April number, when we gave tabulations covering Canadian production and stocks on hand at the end of the year, we called attention to the excessive values placed on the stocks on hand at the end of December 1922, as compared with the market prices then ruling.

The Department of Colonization, Mines and Fisheries, Mr. Theo. C. Denis, superintendent of mines, very kindly answers by letter, the questions raised, the explanation being:

First, that the stocks on hand as reported in tons by each mine, are valued at the average price of sales and shipments by the same mine for the year. For instance, if a mine reported sales for the year of 175 tons of No. 1 Crude, at a total price of $70,000, then the average price, as calculated from those figures, or $400, was used as a basis for the valuing of the stock on hand of No. 1 Crude reported by that same mine.

It is readily seen that by this method if prices slumped during the middle of the year, the average for the year would naturally be higher than the current market price ruling at the end of the year.

Secondly, Mr. Denis explains that in the case of No. 2 Crude, the average value of shipments as reported by various mines varied, some mines reporting an average price of $100 per ton, others an average of $400 per ton (these figures are supposititious) and others a figure somewhere between. It so happened that the mine reporting the high price had the largest quantity of No. 2 Crude on hand, and for that reason the average price was far above the actual market prices ruling at the end of the year.

Mr. Denis is very desirous that his reports reflect true conditions, and to this end offers to leave out the figures covering value of stocks on hand, if thought best, or to correct his method of valuation, if a fair one can be decided upon.

We believe the figures to be of sufficient value to make it desirable that they be continued, but feel that a better

and more accurate method of calculation could be arrived at.

Will all our readers, and particularly miners and brokers, give thought to this problem, and suggest to "ASBESTOS" what, in their opinion, would be the most nearly correct method of calculation. We in turn will reflect the various recommendations to Mr. Denis, and if possible, assist him in working out an equitable basis of valuation.

Production Statistics

Australia.

Advices have just reached us to the effect that production of asbestos in New South Wales, Australia, during 1922, amounted to 561 tons, valued at £11,418.

India.

During 1920 the total output of asbestos in India came up to 1818 tons. Out of this quantity, 1711 tons were raised from the district of Hassan, and the balance, 107 tons, from the district of Bangalore in the native state of Mysore.

The year 1921 showed an output of 237 tons from the district of Hassan; and Bangalore contributed 67 tons daily. The local value of the total output came up to 12,150 rupees. In addition the native state of Seraikella, in the district of Singlebrum, produced 11½ tons only, valued at 1100 rupees. The figures for 1922 are not yet available.

In the face of these facts, it is a wonder that certain Indian asbestos mine owners are still expecting to get 150 to 500 rupees per ton, for their stuff, tho it is not good in any way. They are not working their mines at all. This is a fit case for state intervention. The Indian mining rules have provision for cancellation of leases if properties which have been leased out are not worked for any length of time. But the authorities do not wish to be hard in view of the fact that mining enterprises, barring coal, have not "caught on." The state does not charge any premium and the royalty terms are low.

I have seen the samples of several properties in Mysore and elsewhere, but they are not in any way comparable to

the Canadian stuff for instance. Unless the Indian mine owners give up their day-dreams, they will have to sit with folded hands, while their American competitors will sway the field from which it will be difficult to oust them.—*By S. B. Banerjea.*

Rhodesia.

The report of the Rhodesia Chamber of Mines, gives the following production figures for the month of January 1923:

	Tons	Value
Bulawayo District—		
Nil Desperandum (Afr. Asb. Min. Co.)	173	£3,465
Pangani (J. S. Hancock)	30	356
Shabanie (Rho. & Gen. Asb. Corp.)	646	16,148
Lomagundi District—		
Ethel (Union & Rhod. Tr.)	75	1,875
Victoria District—		
Balmain (Afr. Asb. Min. Co.)	104	2,085
Gath's (Rho. & Gen. Asb. Corp.)	357	8,919
King (Rho. King Asb. Co.)	323	6,467
	1,708	£39,315

During January 1922 the production amounted to only 557 tons.

Union of South Africa.

Our readers may be interested in seeing figures for production and sale of Asbestos in the Union of South Africa, for the last twelve years:

1911...£10,839	1915...£35,899	1919...£ 66,426
1912... 18,882	1916... 83,070	1920... 114.195
1913... 16,028	1917... 87,364	1921... 103,067
1914... 20,087	1918... 54,037	1922... 80,230

The Department of Mines and Industries reports the following figures for sales and shipments of asbestos during January, 1923:

	Tons	Value
Transvaal	428	£6,243
Cape	200	2,610
	628	£8,853

During January, 1922, the value of sales and shipments was £5,686.

The Fusing Point of Asbestos

One of our readers asked us the other day what the fusing point of asbestos was. We made some little investigation, and it occurs to us that all our subscribers would be interested in our findings on this subject.

First of all, we find an article in "Industrial Chemistry, Inorganic," Volume 2, under the heading "Asbestos Industry," written by F. W. Penny, which reads as follows:

"Chrysotile is undoubtedly the most important variety of asbestos commercially in spite of the disadvantage it possesses of being attacked by acids, especially H_2SO_4, and comparing unfavorably with the amphibole varieties in its fire resisting qualities. Notwithstanding the large amount of water which it contains in its molecule, the Canadian chrysotile is said to be able to withstand temperatures of from 2500 to 3000 deg. F., which is probably sufficiently resistant for most purposes."

And then R. H. Jones, in his book, "Asbestos, Its Properties, Occurrences and Uses," says:

"One of the most valuable properties of Asbestos is its infusibility. Under the blow pipe a single fibre will fuse into a white enameled glass or opaque globule, but in the mass, some varieties have been known to resist the most intense heat without any visible effect. Chrysotile, however, if exposed for some time to long continued heat will lose somewhat of its tenacity and silkiness, and become rough and brittle."

Fritz Cirkel, in his "Chrysotile-Asbestos" while not going into detail, says:

"To be of any commercial value, asbestos needs length, fineness of fibre, combined with infusibility, toughness or tensile strength, and flexibility. Canadian chrysotile asbestos possesses all the above mentioned properties and qualities in a marked degree. Temperatures of 2,000 to 3,000 deg. F. are easily withstood, while with some varieties a temperature of 5,000 deg. F. has apparently produced no visible effect."

Tests made recently by a competent laboratory indicate that the fusing point is approximately 1630 deg. Centigrade, or 2800 deg. Fahrenheit.

NEWS OF GENERAL INTEREST

Production of automobiles during January 1923 is reported as 223,706 passenger cars and 17,376 trucks, or a total of 243,082; during February the production was 254,650 passenger cars and 21,815 trucks, or a total of 276,465. It is interesting to compare these figures with those for 1922, January production in 1922 being 81,693 passenger cars and 9,416 trucks, while in February 1922, 109,171 passenger cars were produced, and 13,195 trucks.

March production, however, broke all previous records, amounting to 318,424 passenger cars and 34,593 trucks, or a total of 353,017. March production last year amounted to but 172,720, 152,959 of which were passenger cars and 19,761 trucks.

It is of interest to note that the highest production during any month in 1922 amounted to only 289,011 cars and trucks, or 64,006 less than production for March, 1923.

Fire losses for March show a slight falling off from those of February. March figures total $33,593,909, February's $38,855,650.

We note from the March 23rd issue of Marine News, that plans are under consideration for the establishing of a steamship line between New York and Atlantic City.

It is rumored that representatives of Henry Ford have started negotiations for the purchase of a part of Hog Island.

The Chamber of Commerce of the U. S. A. reports that about $70,000,000 is spent annually by manufacturers and others on scientific research, and computes a return on this investment of $500,000,000, representing the savings effected as a result of this research work.

The Department of Commerce in a recent issue of Commerce Reports, stresses the fact that manufacturers and others should not hesitate to call on its district offices for information in connection with foreign and domestic trade. Lists of such branch offices are given each month on the back cover page of Commerce Reports and can be supplied by "ASBESTOS" to anyone interested. The Philadelphia office of the Department of Commerce, or rather of the Bureau of Foreign and Domestic Commerce, is at 930 Witherspoon Building, in charge of Leonard B. Gary. New York's branch is located at 734 Customhouse, and is in charge of Albert J. Barnaud.

NEWS OF THE INDUSTRY

The strike at the King Mine (owned by the Asbestos Corporation of Canada) caused some exciting days in Thetford during the last week of April. The strike seemed to be a matter of enmity of the men directed at the Mines Manager, Colonel MacNutt, and at two superintendents of construction, the latter being in charge of the construction of the new mill which the Corporation is at present having erected.

The discharging of one or two men, together with some other minor differences, culminated in the men at the King mine forcing Colonel MacNutt and the two superintendents to board a train and leave town. This occurred on Monday, April 23rd.

This done, the men went back to the mine to work, but the officials of the Corporation very properly refused to permn them to return to work until Colonel MacNutt was returned. Later in the day the men made a second effort to go back to work. Again they were refused permission and at the same time the Beaver Mine was closed.

On Wednesday, the 25th, Colonel MacNutt returned with forty armed constables, stationing them in the offices of the Corporation. The men seized the town fire hose, attacked the offices, hurling rocks, and finally routed the constables and Colonel MacNutt, who departed by train. Men from the other mines in the district helped in this second attack but quietly returned to work when it was over.

The men at the King Mine remained out until Monday, the 30th, when they were permitted to return to work, and at time of going to press the Thetford mining district is comparatively calm.

The Asbestos Corporation of Canada is erecting a new mill, valued at $500,000, at Thetford Mines.

A bill has been presented to the Belgian Chambers to provide for the revision of the Belgian Customs Tariff. The proposed new tariff contains a maximum and minimum rate, the maximum being three times the minimum. The maximum rates are to be applied only exceptionally, to goods originating in or coming from countries not having commercial arrangement with Belgium, which do not accord to Belgium most-favored nation treatment in matters of commerce, navigation and customs, or which seriously impede Belgian commerce, navigation or industry by import or export prohibitions or restrictions or by the application of excessive duties or taxes; also temporarily, to goods which, as the result of fundamental economic reactions brought about in the country of origin or shipment by a considerable depreciation of currency, enjoy advantages on importation into Belgium of such a nature as radically to modify nor-

mal competitive conditions to such an extent as to imperil native industry. The proposed rates on Asbestos goods are as follows:

Asbestos paper and board, in sheets, rolls or plates, even with interior of metal threads

(a) Not cut or simply cut at right angles—minimum rate 5 francs per 100 kilogs.

(b) Shaped, even perforated—minimum rate 8 francs per 100 kilogs.

Yarn and cord of asbestos, plaited or not, even combined with other textile materials or with body of metal (excepting packing cord)—minimum rate 12 francs per 100 kilogs.

Fabrics of asbestos, even combined with other textile materials or with warp or weft of metal threads—minimum rate 20 francs per 100 kilogs.

Asbestos manufactures, not specified or elsewhere included 25 francs per 100 kilogs.

Coefficient of increase on all these items is 3.—*India Rubber Journal.*

During January and February 1923, Lind's Asbestos Products, Limited, was registered, with a capital of £4,500. Their address is Ashers Buildings, Fox Street, Johannesburg.

Kaapsche Hoop Chrysotile Limited, of Johannesburg, has increased its capital from £8,000 to £10,000.

H. L. Hutchison, for the past two years a representative of the Pittsburg Office of the Asbestos Shingle, Slate & Sheathing Company, will, on May 15th, assume charge of the Estimating Department of the Company at Ambler, Pa.

If any of our readers have an asbestos paper corrugating machine which they would like to dispose of, please advise "ASBESTOS" promptly.

According to the January report of the California State Mining Bureau, the American Magnesium Company proposes to build in either Los Angeles or San Pedro, a refining plant for the manufacture of Magnesium carbonate and epsom salts.

The book "African Mines" is in our possession and may be consulted by anyone interested. Like most works of this sort, however, not very much space is devoted to Asbestos, but the principal asbestos mines in Africa are described in detail.

An attractive circular, describing and illustrating Dreadnaught Roof Cement, has been received from the Dreadnaught Building Material Supply Corporation of New York City.

Newspaper reports indicate that the Albany Asbestos Slate Company is increasing its force of workmen, orders being quite

a bit in advance of production. This factory started operations in the latter part of March and at present is turning out from 30 to 40 squares (100 square feet to square) daily.

Blow torch tests on the Asbestos Built-Up Roof which covers the new Yankee stadium in Brooklyn, N. Y., show that the roof will be unaffected by temperatures as high as 1,500 deg. F. The roof contains 110,000 square feet.

It is reported that Johns-Manville Inc. has announced plans for a twenty-four story office building in New York City.

Mikesell Brothers Company of Chicago, announce the removal of their Chicago offices, on April 20th, to 104 S. Michigan Ave., Monroe Bldg. They were formerly located at 156 N. LaSalle Street.

The New York Builders Supply Company of New York City, is issuing as advertising, handy size, attractive blotters, containing instead of an illustration, a pithy saying.

A new invention reported in a recent issue of the India Rubber Journal is the manufacture of rubber soles and heels for boots, and shoes. These are made of India rubber in which there is embodied 40 to 60 per cent of asbestos fibre, the asbestos acting as a binder medium for the rubber.

Fire caused damage estimated at $6000 in the plant of A. H. Green, Camden, N. J., on April 20. Much of the loss was due to water soaking the large stock of asbestos coverings stored on the second floor of the building, ready for shipment.

It is reported that the Kamiah Asbestos Company of Kamiah, Idaho, are about closing the sale of their property to Spokane people.

John Alexander Dick, formerly a partner in Dick's Asbestos Company, London, died on March 28th, at his residence at Cassi, France.

Mr. Dick retired from business in 1919 when the firm was converted into a limited company.

It is reported that the Asbestos Slate & Sheet Mfg. Company, at Sydney, Australia, the largest manufacturers of asbestos cement products in that country, have decided to close their mines and buy their asbestos fibre in Africa. The reason for this move, according to one of the officials of the company, is the cheapness of labor in Africa, which makes it more economical to buy African fibre than to operate their own mines.

Mr. D. Moore of the Felt Paper Company at Rowlandville, Md., asks us to correct a rumor to the effect that their plant is

for sale. Mr. Moore tells us that they have no intention of selling their plant, and that they are at present devoting their efforts to the manufacture of asphalt roofings.

At the instigation of one of the larger Brake Lining concerns, Brake Test campaigns are being instituted in various cities.

Sir Mortimer B. Davis, chairman of the Board of Directors, Consolidated Asbestos Limited, returned from his winter sojourn in Cannes, France, arriving in Montreal April 30th, in splendid health and vigor.

The Asbestos and Mineral Corporation has remaining a limited number of their "Asbestos Sample Displays," mentioned and illustrated on page 30 of April "ASBESTOS," and will gladly supply one of these displays to any one who is keenly interested in the subject of asbestos.

PATENTS

(Of interest to the Asbestos Trade)

On March 27th, Patent was granted to Robert D. Pike of San Francisco, Calif., on the **Method of Treating Magnesite.** No. 1,449,696; Serial No. 438,662, filed January 20th, 1921. Described as the method of treating Crude Magnesite containing lime, for recarbonization of the said lime which consists in calcining the material within a calcining furnace, thence passing the calcined material thru a rotating vessel, while at a temperature less than that required for calcination and subjecting the material while in said vessel to the action of flue gases withdrawn from the calcining furnace and passed into the vessel whereby the CO_2 contents of the flue gas attacks the soluble lime of the material and causes the recarbonization thereof.

On April 3rd, to Lester Kirschbraun of Chicago, Ill., assignor to the Raybestos Company, of Bridgeport, Conn. No. 1,450,319, Serial No. 384,901. Filed May 28th, 1920, renewed February 15, 1923. Described as a process of **Making Asbestos Friction Clutch Rings** consisting in starting an unwoven felted asbestos facing in a bath of heated asphaltic base oil, subjecting the facing to a baking operation at an elevated temperature, and continuing the baking until the saturation is substantially insoluble in carbon tetrachloride.

On April 3rd, No. 1,450,856, Serial No. 386,353. Filed June 3, 1920, covering **Non-Conducting Material.** Patent granted to Robert Illemann of Glasgow, Scotland, and described as the method of making porous non-conducting material suitable for covering steam boilers, and for like purposes, which comprises mixing together calcined gypsum and an excess of water, then intermittently agitating the mixture until a plastic spongy mass is produced by the absorption of the excess of water and finally evaporating the water so as to leave an air filled mass.

Human Nature

In times gone by the average man
Consumed his mess of pottage,
But rarely ever rushed the can
Within his lowly cottage.
Tho of the juices of the vine
He seldom was a scorner,
The thirst he had for beer or wine
Was quenched around the corner.

The village youth who came to pay
Advances to his daughter,
Would take their cocktails on the way—
She served them only water.
Nor did they hang around the place
Till midnight struck or longer,
Each with a sad and wistful face
Expecting something stronger.

In sideboards silverware was kept
And no one would be able,
To find a thing in them except
The service for the table.
Within the cellar bin was pent
What coal one might require,
And, when he went downstairs, he went
To poke the furnace fire.

But altered much conditions are,
Besides the mess of pottage
A nicely stocked tho home made bar
Now graces every cottage.
And every man who has strong drink
Before his friends will set it,
The reason being, so we think,
To show that he can get it.

James J. Montague in the National Digest.

BUYERS CLASSIFIED INDEX

Being a listing of those firms whose products are of particular interest to those in the Asbestos Industry.

Rate for listing supplied on application.

We hope to gradually make this listing of great value to our readers.

ASBESTOS TEXTILE MACHINES

Whitin Machine Works, Whitinsville, Mass.

UNITED STATES ASBESTOS CO.

General Offices and Mills

Manheim, Penna.

MANUFACTURERS OF

ASBESTOS

BRAKE LINING
CLUTCH FACINGS
FABRICS
LISTING
PACKING
TAPE
YARNS

SALES OFFICES and WAREHOUSES

New York	Boston	Chicago
Pittsburg	Lancaster	San Francisco